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Foreign Capital Inflows and Human Development in ECOWAS

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ABSTRACT

This study examines the relationship between foreign capital inflows and economic development in selected countries in the ECOWAS with a focus on Ghana, Guinea, Liberia, Nigeria, Sierra Leone, Niger, Mali, Senegal, Cote d'Ivoire and Burkina Faso. In particular, foreign capital inflows were measured by foreign direct investments (FDI) inflows, net official development assistance (ODA) inflows, remittances inflow and external debt stocks while human development index (HDI), employment generation, real gross domestic product (GDP) growth and gross national income (GNI) per capita were employed to measure economic development in the ten selected countries. Panel datasets required for this study were obtained from the World Bank database, UNDP Human Development Reports and IMF Financial Statistics. The data were analysed using descriptive statistics, panel unit root test, Rao cointegration tests, panel ARDL estimation involving mean group (MG) and pooled mean group (PMG) estimators, and the Hausman test. The panel unit root test results showed that the variables are mixed integrated with evidence of I(0) and I(1) series in the model while the Rao cointegration test results showed a long-run relationship among the variables in the model. The findings from the estimated panel ARDL results showed that FDI inflow positively and significantly influenced HDI inflows. At the same time, the results showed that remittances inflow and ODA contributed positively to HDI. on economic development indicators was also established from the long-run results. On the other hand, the results further showed that external debt negatively affected HDI. Given the findings, this study concludes that capital inflows in the forms of FDI, ODA and remittances are imperative for the long-term development of human capital.

Keywords: *Human development, foreign capital, FDI, remittances, development aid, external debt and ECOWAS*

Introduction

The share of Africa and in particular West Africa sub-region of the global capital flows has continued to vary over time. Most of the debates in international economics literature have devoted attention to the potential of foreign capital inflows to bolster growth capable of attaining development goals. FDI inflows have been identified as the dominant foreign capital in the West African sub-region with the potential to bridge the gap between desired investments and domestically mobilized savings. Available statistics show that FDI inflows to West Africa in 2022 increased by 48% to US\$14 billion [United Nations Conference on Trade and Development [(UNCTAD), 2022]. The report shows that Nigeria surpassed other countries in the sub-region with FDI inflows of US\$4.8 billion, which was largely linked to a resurgence in investments in the oil and gas sectors. Besides FDI inflows, remittances represent a greater share of the GDP in West African countries. In 2019, the amount of remittance inflows to West Africa was US\$35.6 billion (World Bank, 2019; United Nations Department of Economic and Social Affairs, Population Division, 2019). The World Bank (2020) report shows that remittances share of GDP for Ghana, Senegal, Liberia and Nigeria stood at 7.3%, 9.1%, 12.0% and 6.1% respectively. Additionally, Nigeria emerged as the West African country with the largest remittance inflow in 2022 which is valued

at US\$20.1 billion (World Bank, 2022). Similarly, it is also widely recognised in extant literature that the West African sub-region is home to foreign aid including official development assistance (ODA), technical cooperation grants, bilateral aid and sector-specific aid among others. There have also been increasing inflows of bilateral and multilateral loans with their associated debt service implications. In sum, West Africa has remained a notable region for both aid and debt inflows which are intended to support the developmental goals.

Despite the continuous inflow of foreign capital, the countries in West Africa still lag behind their counterparts in developed countries in terms of the level of economic development. For instance, the United Nations (2021) report shows that extreme poverty in West Africa increased by 3% in 2020. The report highlights that the deteriorating economic situation has adversely affected food security and nutrition in West Africa with over 25 million people finding it difficult to meet their basic needs. Additionally, unemployment and the growing income gap are prevalent in West Africa (Aladejare, Ebi and Ubi, 2022). These have raised concerns about the effectiveness of foreign capital inflows in promoting economic development. To this end, this study seeks to explore the human development implications of foreign capital inflows following conflicting and mixed evidence in previous studies.

LITERATURE REVIEW

Theoretical Literature

La Porta et al. (1998) introduced the law and finance hypothesis, an economic theory that explains the connection between a country's ability to draw in capital and its legal and financial institutions. The core tenet of this theory is that the efficiency of a nation's financial system and legal environment has a big influence on the flow of capital inflow from overseas investors. As a result, nations with robust legal frameworks that uphold contracts, safeguard property rights and foster a stable business climate typically draw in more foreign investment. When contracts are enforceable and investors' rights are protected, the likelihood of future losses is decreased and they feel more comfortable. Investor trust is increased when there is a fair and transparent business climate, which is also facilitated by strong legal institutions.

According to La Porta et al.'s (1997) analysis of 49 nations, those with smaller and less developed capital markets are also those with less robust legal frameworks and enforcement of investor safeguards. They explain the importance of the results obtained in the bond and stock markets, and they think that French civil law nations have the least developed capital markets and the least robust investor safeguards when compared to common law countries. In addition to legal institutions, the efficiency and depth of a country's financial system also play a crucial role in attracting capital inflows.

A well-developed legal system plays an important role in protecting the rights of creditors partly because it facilitates the flow of information about borrower to creditors.

Creditors use this information to make lending decisions and to aid them in taking appropriate action in the event of default. The Law and Finance hypothesis suggests that countries with strong legal and financial systems are more likely to attract foreign direct investment (FDI) and portfolio investment. The strength of the legal system and the ability to obtain outside funding are positively correlated in both developed and developing nations (La Porta *et al.*, 1997; 1998). Financial markets are impacted by the legal system in two ways, according to Fabbri (2001).

The law's definition of the rights and authority of outside investors is the first way it does this. The definition of the property rights that borrowers have over assets they use as collateral depends in part on the content of the legislation. Data points to a positive correlation between improved property rights and easier credit availability (Acemoglu and Johnson, 2005).

Empirical Literature

Gökmenoğlu, Apinran and Taşpınar(2018) explored the impact of foreign direct investment (FDI) on the human development index (HDI) in Nigeria for the period of 1972–2013. The dynamic ordinary least squares (DOLS) estimation Technique was employed for this study. Johansen Cointegration test results revealed a long-term relationship between FDI and human development indices (e.g., school enrollment, life expectancy at birth, and gross national income). Toda-Yamamoto test results show long-run bidirectional causality between FDI and life expectancy at birth. There is also unidirectional causality from FDI to gross national income. These results indicate that FDI has a significant impact on the HDI in Nigeria during the sample period. The striking message their empirical findings conveyed was that the effect of FDI on the HDI is a complicated issue, so to obtain optimum results policy-makers should be aware of and take into account the pros and cons of FDI inflows on several aspects of human development.

Djokoto and Wongnaa (2023) assessed the impact of foreign direct investment (FDI) on the stages of human development (HD) using panel data from 87 developing, 13 transition and 34 developed countries from 1990 to 2019. To improve the efficiency of the results, as well as accounting for possible endogeneity the general methods of moments (GMM) estimator was applied to the first and second approaches to modelling the HDI. The results of the GMM estimator were compared with the non-GMM estimations. The result showed that Foreign direct investment positively influenced human development in developing and developed countries. However, the effect was neutral for transition countries. Regarding the effect of FDI on the stages of HD, except for low human development in developing countries, all the computed effects were positive. Failure to delineate the effects of FDI on HDI into stages of HD would result in inaccurate results leading to inappropriate policy responses. Also, although the positive effect of the unsegregated HD for developing countries is the same as most of the segregated ones, a difference in magnitude exists.

Aderemi, Olowo, Osisanwo and Omoyele (2021) examined the relationship between FDI inflows and poverty reduction vis-à-vis Human Development Index in which majority of past studies have not fully explored in Nigeria. Data were extracted from secondary sources with application of ARDL and Bounds test technique. The major findings that came up in this study were as follows; FDI net inflows had an insignificant negative relationship with GDP per capita that measures welfare of the people in terms of the socio-economic benefits in Nigeria. Similarly, net FDI inflows had a negative but insignificant relationship with literacy rate, which measures welfare of the people in terms of educational attainment. Whereas, net FDI inflows had an insignificant positive relationship with life expectancy which measures welfare of the people in terms of health. Consequently, steaming from the principal findings that emerged in this work, the following recommendations were therefore made for the policy makers in Nigeria. When the Nigerian policy makers want to address poverty holistically in the country, the human development variables should be targeted. Also, policy measures that would stimulate FDI inflows into the country should be encouraged, and FDI inflows in the country should be utilized maximally in order to bring poverty reduction in the country in the short run.

METHODOLOGY

Research Design

Given the nature of this study, ex post facto research was adopted because it allows for the use of data from existing sources. It is also considered ideal for analysing the cause-and-effect relationship between economic phenomena.

DATA COLLECTION METHODS AND SOURCES

This study relied on panel data which comprises time dimensions (1990 -2022) and cross-sectional units (selected ECOWAS countries). The datasets were obtained from the World Bank World Development Indicators (WDI) and the United Nations Development Programme (UNDP) human development reports.

Model Specification

The functional specification of the models is provided as follows:

$$\text{HDI} = f(\text{FDI}, \text{REM}, \text{ODA}, \text{EXD}) \quad (1)$$

Where: HDI = Human development index, FDI = FDI inflows, REM = Remittances, ODA = net ODA inflows and EXD = external debt stock

The panel autoregressive distributed lag (PARDL) model specifications with p and q lags is provided below:

$$\Delta \text{HDI}_{it} = \lambda_i [\text{HDI}_{i,t-1} - \beta_{0i} - \beta_{1i} x_{i,t-1}] + \sum_{j=1}^p \alpha_{ij} \Delta \text{HDI}_{i,t-j} + \sum_{j=0}^q \varphi_{ij} \Delta x_{i,t-j} + \mu_i + v_{it} \quad (2)$$

Where: β_{0i} = heterogenous intercepts, λ_i = error correction coefficient, β_{1i} = heterogenous slope parameters, $x_{i,t}$ = vector of independent variables, α_{ij} and φ_{ij} = short run parameters and p and q = optimal lag orders, Δ = first difference operator, i = cross-sectional units (the selected ECOWAS countries), t = time dimensions (1990-2022), u_i = individual effects and v_{it} = remainder disturbance term.

Method of Data Analysis

This study employed the panel unit root test to test the stability of the variables. Following the assumption of cross-sectional dependence in the panel data, the first-generation panel unit root tests were complemented by the second-generation panel unit root tests. Specifically, this study employed the Mean Group (MG) estimator credited to Pesaran and Smith (1995) and the Pooled Mean Group (PMG) estimator developed by Pesaran, Shin, and Smith (1997) for the model estimation. According to Fazli and Abbasi (2018) and Onuoha *et al.*, (2018), the MG estimator allows for the variation of short-run coefficients, error correction terms, intercepts, and error variances across the entire cross-section. On the other hand, the PMG estimator only permits the intercept and short-run coefficients to vary between the groups but constrains the long-run coefficients to be equal. This study employed Hausman's (1978) test to determine which of the two alternative estimators of MG and PMG to use for the estimation of the PARDL.

RESULTS AND DISCUSSION

Panel Unit Root Test

The panel unit root test was conducted using the IPS method. The results are presented in Table 1.

Table 1: IPS panel unit root test results

Variable	Levels test results	1 st diff. test results	Number of panels	Order of integration
HDI	-1.238 (0.0000)	-3.943*** (0.0000)	10	I(1)
FDI	-3.3880*** (0.0004)	-	10	I(0)
REM	0.2179 (0.5862)	-6.7680*** (0.0000)	10	I(1)
ODA	-3.1493*** (0.0008)	-	10	I(0)
EXD	-1.4675* (0.0711)	-6.1577*** (0.0000)	10	I(1)

Source: STATA 17 output

Note: * p<0.01, ** p<0.05, * p<0.1 denote significant at 1%, 5% and 10% level respectively**

The IPS panel unit root test results showed that FDI and ODA are stationary at the 5% significance level given that the probability values of their test statistics are less than 0.05. On the other hand, the results showed that HDI, remittances inflow and external debt stocks are not stationary. This is based on the fact that the probability values of their test statistics at levels are greater than 0.05. Thus, the null hypothesis of no unit root is rejected for these variables. However, the first difference test results showed that the variables are stationary at the first difference, Hence, it followed from the IPS unit root test results that the variables are mixed and integrated with evidence of I(0) and I(1) series. This finding also provides the basis for subjecting the variables in each of the models into cointegration to ascertain if a long-run relationship exists among them.

Panel Cointegration Test

The panel cointegration test for this study was conducted using the Rao method which followed the evidence of mixed-integration from the panel unit root test results. The test results are presented in Table 2.

Table 2: Rao cointegration test results

HDI FDI REM ODA EXD			
Ho: No cointegration		Number of panels	= 10
Ha: All panels are cointegrated		Number of periods	= 21
Test type	Statistic	p-value	
Modified Dickey-Fuller t	-5.4470***	0.0000	
Dickey-Fuller t	-2.9499***	0.0011	
Augmented Dickey-Fuller t	-0.5630	0.2867	
Unadjusted modified Dickey-Fuller t	-0.4621	0.3220	
Unadjusted Dickey-Fuller t	-3.3618**	0.0288	

Source: STATA 17 output

Note: * $p < 0.01$, ** $p < 0.05$, * $p < 0.1$ denote significant at 1%, 5% and 10% level respectively**

The results showed that the test statistics (-5.4470, -2.9499 and -3.3618) for Modified Dickey-Fuller test, Dickey-Fuller test and Unadjusted Dickey-Fuller test are associated with probability values which are greater than 0.05. This finding necessitates the rejection of the null hypothesis of no cointegration at the 5% significance level. Thus, it followed from the results that HDI has a long run relationship with the capital inflows in the selected 10 member countries in the ECOWAS sub-region. This finding corroborates the results of Arcelus, Sharma and Srinivasan (2005), Ifeosame (2023) and Monogbe, Okereke and Ifionu (2020) who reported that human development has a long run relationship with inflows of international capital in developing economies. This finding highlights the fact that cross-border capital flows especially inward flows are important in predicting changes in human development.

Model Estimation

Following the evidence of mixed-integration from the panel unit root test results and cointegration from the Kao test for panel cointegration, the panel ARDL model was estimated to ascertain the long and short-run effects of capital inflows on HDI. The PMG and MG results and the associated Hausman test results are presented as follows:

Table 3: Panel ARDL results

Dependent variable: HDI		
VARIABLES	MG	PMG
Ec	-0.134** (0.0559)	-0.352421*** (0.12121)
D.FDI	0.000526** (0.000218)	0.85971 (0.520)
D.REM	0.00153*** (0.000425)	0.006143** (0.00214)
D.ODA	0.000101 (0.000141)	0.00159*** (0.00045)
D.EXD	-0.000181 (0.000166)	-0.01481 (0.09817)
FDI	0.00225*** (0.00073)	0.00778*** (0.00278)
REM	0.0258*** (0.0011)	0.077076 (0.02674)
ODA	0.00280 (0.00194)	-0.97397 (6.3237)
EXD	-0.00159** (0.000755)	-0.02017* (0.01147)
Constant	0.0799*** (0.0268)	0.17608*** (0.01798)
Hausman test results	chi2(4) = 17.09	Prob > chi2 = 0.0019
Observations	220	220

Source: Regression output from using STATA 17

Note: * p<0.01, ** p<0.05, * p<0.1 denote significant at 1%, 5% and 10% level respectively**

As previously explained, the Hausman test results formed the basis for deciding the appropriate results between MG and PMG for the HDI model. The results show that the Chi-square statistic's (17.09) probability value (0.0019) is less than 0.05. This finding necessitates the rejection of the null hypothesis, indicating that the MG result is the most efficient and preferred result which was relied upon for the interpretation. As observed from the results, the error correction coefficient (-0.134) is negative and significant, indicating that the model can adjust from the short to long run

at a speed of 13.4%. This suggests that it would relatively take a long period for the distortions from the long-run equilibrium position can be corrected. The MG results showed that FDI has a positive and significant effect on HDI in both short and long run. In comparison, the positive contribution of FDI to HDI is larger in the long run than in the short run, indicating that the effectiveness of FDI in driving human development manifests more in the long-run.

Similarly, the results showed that remittance inflows positively affected HDI in both short and long. This finding is significant at the 5% level, indicating that inflow of remittances plays an essential role in enhancing human development in the selected countries in the ECOWAS sub-region. It also explained that remittance inflows provide opportunity for migrants' households to improve the educational level, healthcare access and standard of living which are integral aspects of human development. The results further showed that ODA has positive effect on HDI in both short and long run, but this finding is not significant at the 5% level. This highlights the ineffectiveness of foreign aid, especially ODA to significantly improve the level of human development during the study period.

In addition, the results showed that external debt has a negative effect on HDI in the long run. The negative effect of external debt on HDI is significant at the 5% level, indicating that the growth in external debt has not translated to improvements in human development in the study. This finding further explains that governments in each of the selected countries have not prioritized human development in the investment of loans from external sources. In other words, the results showed that critical aspects of human development such as education and health have not adequately benefited from the allocation of loans available to the countries from both multilateral and bilateral sources. This is not surprising following the poor state of education and health facilities and the growing medical of medical tourism that has characterized the countries in the ECOWAS sub-region.

CONCLUSION AND RECOMMENDATIONS

This study investigated the contributions of foreign capital inflows to human development in ten countries (Ghana, Guinea, Liberia, Nigeria, Sierra Leone, Niger, Mali, Senegal, Cote d'Ivoire and BurkinaFaso) in the ECOWAS sub-region. This follows the understanding in extant literature that capital inflows provide a roadmap for human development by bridging the savings gap and providing resources for capital formation in developing economies including Africa. The findings showed that FDI inflows significantly improved human development through a long-term positive contribution to HDI. This attests that inward FDI to the ECOWAS sub-region is important for human development. It is also established from the findings that the inflow of remittances positively and significantly influenced human development in the selected countries. The results further showed that ODA has a positive and significant effect on HDI. On the contrary, the effect of external debt on HDI is negative. This suggests that an increase in external debt has not provided the required opportunities for human development. Based on the findings, this study concludes that foreign capital inflows are critical for human development. Consequently, this study recommends that foreign capital inflows should be prioritized to attract more FDI, development aid and remittances to provide a roadmap for human development in the ECOWAS sub-region.

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